## **ABSTRACT**

An ultrasonic welding probe power supply for powering more than one ultrasonic welding probe with power is provided. The power supply is adapted to provide power only to one welding probe at a time. A ringdown period is monitored between termination of provision of power to a first probe and the initiation of provision of power to a second probe during which provision of power to the second probe is disabled. Circuitry is provided within an ultrasonic welding probe controller to monitor probe activity and to control the interval between termination of provision of power to one probe and the initiation of provision of power to a second probe so that efficient and safe switching is made among ultrasonic probes.